

## CHAPTER 120 STORM WATER MANAGEMENT REGULATIONS

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**120-1. Purpose of Chapter.** 1. The purpose of this chapter is to: a. Promote the public health, safety and general welfare.

b. Establish procedures to control the adverse impacts associated with storm water runoff.

c. Assist in the attainment and maintenance of water quality standards.

d. Reduce the effects of development on land and stream channel erosion.

e. Maintain runoff characteristics after development as nearly as possible to runoff characteristics of November 18, 1992.

f. Minimize damage to public and private property.

2. The approvals to be obtained by the person as required in this chapter shall be based on ch. 119 and vol. 2, building and zoning code, and the requirements designed to accomplish the purposes listed in sub. 1.

**120-3. Definitions.** Unless otherwise defined in this chapter, all terms defined in chs. 119, 200, 225, 290 and 295 have the same meaning as ascribed thereto.

1. **ADVERSE IMPACT** means any modification, alteration or effect on a feature or a characteristic of a wetland, water of the United States or municipal separated storm sewer system; including quality, quantity, hydro-

dynamics, surface area or species composition as defined by the Wisconsin department of natural resources; or human or natural use which is or may potentially be harmful or injurious to property, human health, welfare, or safety, or to biological productivity, diversity or stability.

2. **BEST MANAGEMENT PRACTICE (BMP)** means any acceptable method, structural or otherwise, for controlling the quantity and quality of storm water runoff.

3. **DETENTION** means the collection and temporary storage of surface water runoff for subsequent gradual discharge.

4. **DRAINAGE FACILITY** means any component of the drainage system that has been constructed or altered by humans. It includes channels, ditches, swales, conduits and street and alley pavements.

5. **DRAINAGE SYSTEM** means the collection and conveyance of storm water runoff, snow melt runoff, surface water runoff or other drainage from the land. It includes all drainage facilities, watercourses, water bodies and wetlands.

6. **GROSS AGGREGATE AREA** means the total area, in acres, of all land located within the property boundary containing the land improvement or development activity. This shall include all successive development within a 5-year period.

7. **HYDRAULIC CONDITIONS** means the physical characteristics of the drainage system including size, velocity, slope, material and capacity.

8. **HYDROLOGIC CONDITIONS** means the characteristics of surface water runoff including the direction of flow, flow rate and volume of water.

9. **ILLEGAL CONNECTION** means any unpermitted connection to the drainage system.

10. **ILLICIT DISCHARGE** means any discharge to the drainage system which is not composed entirely of storm water unless a permit has been obtained from the appropriate regulatory agency. This includes but is not

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limited to activities related to spills, dumping and disposal of any substance or material.

**11. IMPERVIOUS SURFACE** means a surface which has been compacted or covered with a layer of material so that it is highly resistant to infiltration by water. It includes semi-impervious surfaces such as compacted clay, as well as most conventional street and alley surfaces, roofs, sidewalks, parking lots and similar improvements.

**12. MANUAL OF STORM WATER MANAGEMENT PRACTICES** means the document on guidance, specifications and techniques made available to the public for the activities described in s. 120-13.

**13. NATURAL SYSTEMS** means systems which predominantly consist of or use plants, animal, bacteria and other flora and fauna which are indigenous to the land, soil or water.

**14. PERSON** means any individual, association, organization, partnership, firm, corporation or other entity engaging in the development or redevelopment of a property, either as the owner or as the owner's agent. Separate corporate or individual ownership shall not be used to circumvent the intention of this chapter.

**15. PREDEVELOPMENT CONDITIONS** means the condition of the topography or vegetation, including that resulting from human activities, which existed as of November 18, 1992. It also includes the best historical hydrologic data which is commonly available.

**16. RECEIVING BODY OF WATER** means any water body, watercourse or wetland into which surface waters flow either naturally or from human made conveyances.

**17. REGULATORY AGENCY** means any agency given authority to regulate or control the discharge content or rate.

**18. RETENTION** means the prevention of the discharge of a given volume of storm water runoff to the receiving body of water or drainage facility.

**19. SEDIMENT** means the fine particulate mineral or organic material that is in suspension or has settled in a body of water.

**20. SEDIMENTATION FACILITY** means any structure or area which is designed to hold runoff water until suspended sediments have settled.

**21. STORM SEWER** means a system of conveyances for storm water runoff, snow melt runoff and surface runoff and drainage. It includes roadway drainage systems, streets, catch basins and storm water inlets, curbs, gutters, ditches, swales, dug channels and storm drains.

**22. STORM WATER MANAGEMENT PLAN** means the detailed analysis required by s. 120-9.

**23. SUBDIVIDE** means to divide a parcel of land, whether improved or unimproved, into 2 or more contiguous lots or parcels of land in accordance with the provisions of ch. 119.

**24. VEGETATION** means all flora; especially trees, shrubs, vines, ferns, mosses and grasses.

**25. WATERCOURSE** means any natural or human made stream, river, creek, channel, ditch, canal, conduit, culvert, drain, waterway, gully, ravine, street, roadway, swale or wash in which water flows in a definite direction, either continuously or intermittently and which has a definite channel, bed or bank.

**26. WATERSHED** means a drainage area or drainage basin contributing to the flow of water into a receiving body of water.

### 120-5. Illicit Discharges and Illegal Connections. 1. DISCHARGES PROHIBITED.

No person may discharge, spill or dump substances or materials which are not entirely composed of storm water into receiving bodies of water, storm sewers or drainage facilities, or onto driveways, sidewalks, parking lots or other areas that drain into the drainage system.

**2. EXEMPTIONS.** The following activities are exempt from the provisions of this section unless found to have an adverse impact on the storm water:

a. Discharges authorized by a permit issued by the Wisconsin department of natural resources.

b. Discharges resulting from fire fighting activities, excluding training activities.

c. Discharges in compliance with ch. 290.

d. Discharges from uncontaminated ground water, potable water source, roof drains, foundation drain and sump pump, air conditioning condensation, springs, lawn watering, individual residential car washing, water main and hydrant flushing and swimming pools if the water has been dechlorinated.

**3. CONNECTIONS PROHIBITED.** It shall be a violation of this chapter to connect a waste water building sewer or drain to the drainage system.

**4. PENALTY.** Violations shall be subject to enforcement procedures and penalties set forth in the building and zoning code.

**120-7. Control of Storm Water Discharge.**

**1. APPLICABILITY.** No person shall proceed with any residential, commercial, industrial or institutional improvement or subdivision of property without having provided for appropriate storm water measures that control or manage runoff from such development or redevelopment or future development of the subdivided property. A storm water management plan must be submitted and approved pursuant to sub. 2 or waived pursuant to sub 4. A plan is required:

a. Before an existing drainage system is altered, rerouted, deepened, widened, enlarged, filled or obstructed in preparation for improvement.

b. Before or concurrent with the submittal and approval of an erosion and sediment control plan as specified in ch. 290.

c. Before the improvement is commenced.

**2. DEVELOPMENT CRITERIA.** A storm water management plan is required if one or both of the following criteria are met:

a. The development has a gross aggregate area of one acre or more.

b. The development occurring has an increase of 0.5 acres or more of impervious area.

**3. EXEMPTIONS.** The following activities are exempt from the storm water management plan requirements:

a. Agricultural activities not associated with development.

b. Maintenance, alteration, use or improvement to an existing structure or construction activity which does not significantly change or affect the water quality and hydrologic conditions of the surface water discharge which has a previously approved storm water management plan.

c. Maintenance activities undertaken by any municipal, state or federal governmental agency.

d. Storm water management measures to be undertaken by the city on an outfall in a specified watershed, when the city engineer has determined that the person need not prepare a storm water management plan.

**4. WAIVERS.** a. Requests to waive the storm water management plan requirements shall be submitted to the city engineer for approval. The waiver request shall be submitted on a form available from the city engineer.

b. The person shall also submit a narrative description and drawings of the proposed development or improvement. The city engineer may request other information that is reasonably necessary to evaluate the waiver.

c. The city engineer shall coordinate a review by city agencies and may grant a waiver if the development is not likely to:

c-1. Increase the rate or volume of storm water runoff.

c-2. Have an adverse impact on a wetland, watercourse or receiving body of water.

c-3. Contribute to the degradation of water quality.

c-4. Otherwise impair attainment of the objectives of this chapter.

**5. RUNOFF RELEASE RATE.**

Release rate and requirements shall be governed by Milwaukee metropolitan sewerage district (MMSD) chapter 13 - surface water and storm rules.

**6. RUNOFF DISCHARGE QUALITY CONTROL.** a. Runoff quality shall meet or exceed the following criteria:

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a-1. For new development, by design, reduce to the maximum extent practicable, the total suspended solids load by 80%, based on an average annual rainfall, as compared to no runoff management controls. No person shall be required to exceed an 80% total suspended solids reduction to meet the requirements of this paragraph.

a-2. For redevelopment, by design, reduce to the maximum extent practicable, the total suspended solids load by 40%, based on an average annual rainfall, as compared to no runoff management controls. No person shall be required to exceed a 40% total suspended solids reduction to meet the requirements of this paragraph.

a-3. For in-fill development under 5 acres that occurs within 10 years after October 1, 2002, by design, reduce to the maximum extent practicable, the total suspended solids load by 40%, based on an average annual rainfall, as compared to no runoff management controls. No person shall be required to exceed a 40% total suspended solids reduction to meet the requirements of this paragraph.

a-4. For in-fill development under 5 acres that occurs 10 or more years after October 1, 2002, by design, reduce to the maximum extent practicable, the total suspended solids load by 80%, based on an average annual rainfall, as compared to no runoff management controls. No person shall be required to exceed an 80% total suspended solids reduction to meet the requirements of this paragraph.

a-5. Any other regulatory agency requirements specific to the discharge produced by the development.

b. Applicability. This subsection applies to post-construction performance standards for new development and redevelopment under s. NR 151.12, Wis. Adm. Code.

7. INTENT TO PROCEED. The department of public works shall be notified 3 working days before any work is commenced on the site. The contact phone number shall be listed in the storm water management plan.

**120-9. Storm Water Management Plan.** The person shall be responsible for the preparation

and implementation of the storm water management plan. Sufficient information shall be furnished to the city engineer for evaluating the environmental characteristics of the affected areas. Such information shall include the potential and predicted impacts on watercourses, the effectiveness and acceptability of the proposed measures for reducing adverse impacts and a maintenance program.

1. GENERAL INFORMATION. The storm water management plan shall be prepared by a registered professional engineer. It shall contain the person's name, address and telephone number. The plan shall also contain but is not limited to narrative descriptions and explanations, maps, charts and graphs, tables, photographs, calculations and supporting reference information to books, publications, manuals and other documents used. The department of public works reserves the authority to determine the appropriateness of the methodology used.

2. EXISTING SITE CONDITIONS. The description of the existing site conditions shall include:

- a. The hydrologic parameters.
- b. The location of areas where storm water collects or percolates into the ground.
- c. Groundwater levels.
- d. Vegetation.
- e. Topography.
- f. Soils.
- g. Location and description of impervious areas.
- h. Locations of all structures and buildings.
- i. Locations of floodplains.
- j. Locations of all receiving bodies of water on or adjacent to the site or into which storm water flows. Information regarding current water quality and classification, if any, shall be provided.
- k. Existing storm water runoff conditions from adjacent tributary areas.
- L. Location and hydraulic conditions of the storm sewer systems.

3. SITE ALTERATIONS. The description of the proposed site alterations shall include:

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- a. Areas where vegetation is disturbed or planted.
- b. Changes in topography.
- c. The size and location of any building or structure.
- d. Site use and any Standard Industrial Classification (SIC) code number.
- e. Changes of impervious surface areas and a description of the surfacing material.

**4. PREDICTED IMPACTS.** The description of the predicted impacts on water quality and quantity from the proposed development shall include:

- a. Drainage facilities.
- b. Receiving bodies of water.
- c. Floodplains.
- d. Ground water levels.

**5. BEST MANAGEMENT PRACTICES.** The description of the proposed best management practices to be used for the protection of water quality shall include:

- a. Detention, retention and sedimentation facilities, including plans for discharges from the facilities, maintenance plans and predictions of water quality.
- b. Areas of the site to be used or reserved for percolation including a prediction of the impact on groundwater quality.
- c. Any other relevant volume controls or measures not described in pars. a or b.
- d. A plan for the control of erosion and sedimentation in accordance with ch. 290.
- e. Any other relevant source control practices not described in par. d.
- f. Any other information which the person or the city believes is reasonably necessary for an evaluation of the development.

**6. GUARANTEE.** a. The plan shall also be accompanied by an irrevocable letter of credit, certified check or surety bond to guarantee implementation and completion of storm water management plans. After completion of the plan, that portion of the guarantee not utilized under s. 120-17 shall be released or returned.

- b. The plan shall also be accompanied by a second such guarantee to insure the facilities are maintained. The guarantee shall be in effect until the facilities are recertified as required by s. 120-15.

**120-11. Off-Site Drainage Facilities.** The city engineer may approve storm water discharges of unacceptable quality into off-site drainage facilities, or in volumes or rates in excess of those allowed by this chapter. The following conditions must be met:

1. It is not feasible to manage the total runoff within the site.
2. Adverse impact from the site will be minimized.
3. The design, construction, operation and maintenance of the off-site drainage facilities and the facilities leading to them are in accordance with the requirements of this chapter.
4. The person will be responsible for the costs of design, construction, maintenance and operation of the off-site drainage facilities and facilities leading to them. The person may enter into a private agreement with the owner of the property on which such off-site drainage facilities exist, to share in any of the cost responsibilities.
5. For each operation or maintenance shared responsibility agreement, the city engineer shall be provided with a deed restriction which contains the requirements of the agreements.
6. The city engineer is provided with an easement for access to the drainage facilities.

**120-13. Manual of Storm Water Management Practices.** 1. The city engineer with the assistance of the commissioners of the departments of neighborhood services and city development shall compile a manual of storm water management practices. The manual shall be made available to the public and updated periodically. The manual will be used for the preparation of a storm water management plan.

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2. The manual shall incorporate current best management practices (BMPs) for controlling the quality and quantity of storm water runoff. The manual shall contain:

- a. Guidance and specifications for the preparation of a storm water management plan, including techniques for calculating and presenting the information required in the plan.
- b. Detailed design specifications for BMPs used to improve the water quality.
- c. Minimum specifications for the construction of BMP facilities which use current sound engineering practices.
- d. Techniques and BMPs which emphasize the use of natural systems.
- e. Techniques and BMPs for source control measures to manage water quality.
- f. Techniques and BMPs which control volume in an effort to improve water quality.
- g. Minimum requirements for the maintenance plan.

3. The manual is available for purchase from the department of public works.

### **120-15. Maintenance of Drainage Facilities.**

1. Every 5 years the person shall submit a written certification from a registered professional engineer that the drainage facility is operating as originally designed along with an updated irrevocable letter of credit, certified check or surety bond as provided in s. 120-9.

2. When applicable, the facilities shall be maintained in accordance with the agreements set forth in s. 120-11.

3. Minimum maintenance requirements and procedures outlined in the manual of storm water management practices described in s. 120-13 shall also be used.

4. Violations of this section shall be subject to the enforcement procedures and penalties set forth in s. 120-17.

**120-17. Enforcement.** 1. NUISANCE. The following activities are deemed a public nuisance:

a. Any development that is commenced without an approved storm water management plan.

b. Any drainage facility which is not constructed in accordance with the approved storm water management plan.

c. Any drainage facility not maintained in accordance with ss. 120-9, 120-11 or 120-15.

d. Any activity which adversely impacts on water quality.

2. COMPLIANCE ORDER. a. Any public nuisance under this section shall be subject to the provisions of chs. 79, 115 and 116.

b. When the commissioner of the department of neighborhood services determines that a willful violation of the provisions of this chapter exists or has reasonable grounds to believe that one does, the commissioner may order the person to correct the violation by issuing a notice of violation, citation or stop-work order.

c. Any person who commences activity without an approved plan may be required to restore the land to its original condition within 10 days.

d. If the person fails to take corrective action after being noticed, the department of neighborhood services shall take whatever steps are necessary as soon as possible to correct the violation, including but not limited to, using city forces or engaging contractors.

3. RECOVERY OF COSTS. a. If the person has filed an irrevocable letter of credit, certified check or surety bond as required in s. 120-9, the appropriate guarantee shall be executed.

b. If the person has not filed an irrevocable letter of credit, certified check or surety bond as required in s. 120-9, the cost shall be billed to the person, payable within 30 days.

c. If the person has filed an irrevocable letter of credit, certified check, or surety bond, but is less than the actual cost:

c-1. The appropriate guarantee shall be executed.

c-2. The difference in cost shall be billed to the person, payable within 30 days.

d. If the person fails to pay within 30 days, the bill shall become a lien on the real property and collectible in accordance with s. 66.0627, Wis. Stats.

4. **PENALTIES.** In addition to any penalty provided herein or by law, a person who is convicted of violating any provision of this chapter shall forfeit not more than \$2000 for each violation together with the costs of such action. Upon failure to pay the forfeiture, the person shall be subject to imprisonment in the county house of correction for no more than 80 days for each offense. Each day of violation shall constitute a separate offense.

**120-19. Appeals.** Appeals not under the jurisdiction of the standards and appeals commission, s. 200-17, may be submitted to the administrative review appeals board as provided in s. 320-11.

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### LEGISLATIVE HISTORY CHAPTER 120

#### Abbreviations:

am = amended

cr = created

ra = renumbered and amended

rc = repealed and recreated

rn = renumbered

rp = repealed

<u>Section</u>	<u>Action</u>	<u>File</u>	<u>Passed</u>	<u>Effective</u>
Ch. 120	cr	920650	10/30/92	11/18/92
120-1-1-e	am	011255	1/22/2002	2/5/2002
120-3-0	am	951346	1/23/96	2/9/96
120-3-6	rn to 120-3-7	950892	11/6/95	11/14/95
120-3-6	cr	950892	11/6/95	11/14/95
120-3-6	am	011255	1/22/2002	2/5/2002
120-3-7	rn to 120-3-8	950892	11/6/95	11/14/95
120-3-8	rn to 120-3-9	950892	11/6/95	11/14/95
120-3-9	rn to 120-3-10	950892	11/6/95	11/14/95
120-3-10	rn to 120-3-11	950892	11/6/95	11/14/95
120-3-11	rn to 120-3-12	950892	11/6/95	11/14/95
120-3-12	rn to 120-3-13	950892	11/6/95	11/14/95
120-3-13	rn to 120-3-14	950892	11/6/95	11/14/95
120-3-14	rn to 120-3-15	950892	11/6/95	11/14/95
120-3-14	am	011255	1/22/2002	2/5/2002
120-3-15	rn to 120-3-16	950892	11/6/95	11/14/95
120-3-16	rn to 120-3-17	950892	11/6/95	11/14/95
120-3-17	rn to 120-3-18	950892	11/6/95	11/14/95
120-3-17	rn to 120-3-18	011255	1/22/2002	2/5/2002
120-3-17	cr	011255	1/22/2002	2/5/2002
120-3-18	rn to 120-3-19	950892	11/6/95	11/14/95
120-3-18	rn to 120-3-19	011255	1/22/2002	2/5/2002
120-3-19	rn to 120-3-20	950892	11/6/95	11/14/95
120-3-19	rn to 120-3-20	011255	1/22/2002	2/5/2002
120-3-20	rn to 120-3-21	950892	11/6/95	11/14/95
120-3-20	rn to 120-3-21	011255	1/22/2002	2/5/2002
120-3-21	rn to 120-3-22	950892	11/6/95	11/14/95
120-3-21	rn to 120-3-22	011255	1/22/2002	2/5/2002
120-3-22	rn to 120-3-23	950892	11/6/95	11/14/95
120-3-22	rn to 120-3-23	011255	1/22/2002	2/5/2002
120-3-23	rn to 120-3-24	950892	11/6/95	11/14/95
120-3-23	rn to 120-3-24	011255	1/22/2002	2/5/2002
120-3-24	rn to 120-3-25	950892	11/6/95	11/14/95
120-3-24	rn to 120-3-25	011255	1/22/2002	2/5/2002
120-3-25	rn to 120-3-26	011255	1/22/2002	2/5/2002
120-5-1	am	950892	11/6/95	11/14/95
120-5-2-b	am	011255	1/22/2002	2/5/2002
120-7-1-0	am	011255	1/22/2002	2/5/2002
120-7-1	am	950892	11/6/95	11/14/95
120-7-2	rn to 120-7-3	011255	1/22/2002	2/5/2002
120-7-2	cr	011255	1/22/2002	2/5/2002



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120-7-2-a	am	950892	11/6/95	11/14/95
120-7-2-c	am	950892	11/6/95	11/14/95
120-7-2-f	cr	950892	11/6/95	11/14/95
120-7-3	m to 120-7-4	011255	1/22/2002	2/5/2002
120-7-3	rc	011255	1/22/2002	2/5/2002
120-7-3-d	cr	950892	11/6/95	11/14/95
120-7-4-c-1	am	011255	1/22/2002	2/5/2002
120-7-4-d	rp	011255	1/22/2002	2/5/2002
120-7-5	cr	011255	1/22/2002	2/5/2002
120-7-6	cr	011255	1/22/2002	2/5/2002
120-7-6	rc	031208	3/19/2004	4/7/2004
120-7-7	cr	011255	1/22/2002	2/5/2002
120-9-1	am	011255	1/22/2002	2/5/2002
120-13-1	am	980963	12/18/98	1/1/99
120-13-3	cr	011255	1/22/2002	2/5/2002
120-17-2-b	am	980963	12/18/98	1/1/99
120-17-2-d	am	980963	12/18/98	1/1/99
120-17-2-d	am	011255	1/22/2002	2/5/2002
120-17-4	am	011255	1/22/2002	2/5/2002

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